

## CLAIMS LIST

1. (currently amended) A scan head for use in a scanner for measurement of non-specular surfaces by projecting light onto an object to be scanned, and for by detecting light reflected from the object; the scan head having precisely two spaced light projectors and two spaced light detectors; wherein the projectors, when operating, operate in time-division multiplexed mode; wherein and the detectors, when operating, each operate in synchrony to receive light reflected from both projectors from both projectors that is reflected from the object, and provide output image data representing an image of the whole or a selected portion of the object; and wherein the scanning in time-division multiplexed mode provides redundancy in the detector outputs for facilitating discrimination and identification of the image from the image data.
2. (original) A scan head as defined in Claim 1, wherein at least one of the projectors in operation projects coded light.
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- 28. (cancelled)
- 29. (new) A scan head as defined in Claim 2, wherein the light is coded with a de Bruijn pattern comprising a sequence of discernible pattern elements, said sequence being selected so that any sub-sequence thereof of a predetermined length is unique within the sequence.
- 30. (new) A scan head as defined in Claim 29, wherein the pattern elements are of uniform length and are of at least two distinguishable types, each type comprising in sequence at least one bright component and at least one dark component.
- 31. (new) A scan head as defined in Claim 30, wherein the duty cycle of each type of pattern element is uniform for such type and distinguishably differs from the duty cycle of the other types of pattern elements.